

## Glossary of Commonly Used Terms

This list of terms is not intended to be comprehensive, but to explain terms commonly used when discussing wireless technology.

Use the information below to provide additional information, as needed.

Term	Definition	Additional Information
Wi-Fi	Wi-Fi is a way of connecting to a computer network that uses radio waves instead of wires, typically in a less than 100-meter range.	<p>A common misconception is that - Wi-Fi is short for wireless fidelity. Wi-Fi started - as a brand, nothing more than a clever name.</p> <p>Wi-Fi is simply a trademarked phrase.</p>
Wireless	Wireless is the generic term used for technologies which provide service without wires, using radio frequency waves (electro-magnetic waves) and antenna. In terms of computer networking it can include Wi-Fi, Bluetooth, cellular, satellite, and microwave links.	<p>Wireless applies to any communications using radio signals with no wire connection.</p> <p>Wi-Fi is one type of wireless networking.</p> <p>Cellular service is also a form of wireless, intended for medium-range transmissions.</p>
What's the difference between Wi-Fi and wireless?	Wi-Fi refers to a low range wireless connection to a wired communication. A wireless connection uses a cellular network and allows the user to access the internet almost anywhere. Both wireless and Wi-Fi connections have their own set of advantages and disadvantages. Wi-Fi is primarily used by computers. If a person has a mobile phone connected to a network, additional hardware isn't needed to access the internet, unless there are data restrictions on that device.	Wi-Fi specifically refers to accessing the internet without using a physical connection to a router, and cables. Wireless refers to different methods that technology uses with Bluetooth or radio waves for remote connection, for example wireless headphones, speakers, TV, computers, and drones.
Network Priority	Network priority is given to lines assigned to emergency responders during natural disasters. Data and call traffic from other users are temporarily prevented. First responders receive data and call priority for preparation, response, and recovery efforts.	

## Wireless Fundamentals Commonly Used Terms

Network Overload	<p>Unexpected surges and sharp increases in call volume can cause network overload. Texting uses less bandwidth than voice calls. Customers can use text or email vs. voice calls to keep networks clear in the event of an emergency. Networks are monitored by engineers and bandwidths are boosted and/or adjusted as needed.</p>	<p>Causes: Natural disasters, big sporting events, large music festivals, local, state, and national emergencies.</p> <p>Service providers can make needed adjustments to the network in advance for planned events.</p>
Network Capacity	<p>Network Capacity is the amount of traffic a network can handle at any given time. This includes the number of simultaneous voice calls and maximum data speeds.</p>	<p>Currently, US Cellular has 8087 active cell sites, and can support up to 3.8 million simultaneous users on our network at all times.</p>
Cell on Wheels (COW)	<p>Cell on Wheels (COW) is a portable mobile cellular site that provides temporary network and wireless coverage to locations where cellular coverage is minimal or compromised.</p>	<p>A COW provides fully-functional service, via vehicles such as trailers, vans, and trucks, to areas affected by natural disaster or areas with large user volume, like major events.</p> <p>COW cellular tower equipment and mobile wireless communication machinery include cellular antenna and electronic radio transceiver devices.</p>
Analog	<p>Analog systems do not fully use the signal between the phone and the cellular network. Analog signals cannot be compressed and manipulated as easily as true digital signals. Companies switched to digital to fit more channels within a given bandwidth.</p>	
Digital	<p>The first digital cell phones were the second generation (2G) of cellular technology. Digital phones use the same radio technology as analog phones, but they use it differently. Digital phones convert your voice into binary information (1s and 0s) and then compress it. This compression allows between three and 10 digital cell phone calls to occupy the space of a single analog call.</p>	

## Wireless Fundamentals Commonly Used Terms

Cell Tower	A cell tower is a structure that houses electronic equipment to conduct wireless communication.	
Cell	A cell is a geographical area covered by a cell tower, strategically placed to create a network of cells.	
GPS	The Global Positioning System (GPS) is a satellite-based navigation system made up of at least 24 satellites. GPS works in all weather conditions, anywhere in the world, 24 hours a day, with no subscription fees or setup charges. The U.S. Department of Defense originally put the satellites into orbit for military use, but they were made available for civilian use in the 1980s.	GPS satellites circle the Earth twice a day in a precise orbit. Each satellite transmits a unique signal and orbital parameters allowing GPS devices to decode and compute the precise location of the satellite. GPS receivers use this information to calculate a user's exact location. The GPS receiver measures the distance to each satellite by the amount of time it takes to receive a transmitted signal. The receiver can determine a user's position and display it electronically to measure your running route, find a way home, or map an adventure anywhere, once distance is calculated between satellites.
IoT	Internet of Things	IoT is simply the network of interconnected things/devices which are embedded with sensors, software, network connectivity, and necessary electronics that enable them to collect and exchange data making them responsive.
Smart Home	Wireless capable home devices connected to a network, which communicate with one another, or are controlled remotely using apps.	
LTE	Long Term Evolution	LTE represents the high-speed wireless communications technology that many modern cell phones and cellular devices use for high speed mobile communication., You're connected to an LTE

## Wireless Fundamentals Commonly Used Terms

		network when you see the LTE symbol on your device.
VoLTE	Voice over LTE	This technology enables calls and data usage at the same time.